

CLAIMS:

1. A combustion-engined setting tool for driving fastening elements such as nails, bolts, pins and the like in a constructional component, comprising a fuel source (11); a fuel conduit (12) from the fuel source (11) to the combustion chamber (13); at least one metering device arranged in the fuel conduit (12) between the fuel source (11) and the combustion chamber (13); and a control device (20) for actuation of the metering device 30,

characterized in that

the metering device (30) is formed for measuring and metering out an amount of fuel in form of a n-number of discrete separate portions, with a volume of discrete separate portions being predetermined and constant.

2. A setting tool according to claim 1,

characterized in that

there is provided on the setting tool sensing means (22) for determining parameters of the setting tool and of the environment and for communicating acquired data to the control device (20), whereby the control device (20)

determines, for each operation cycle, the n-number dependent on the determined parameters.

3. A setting tool according to claim 1 or 2

characterized in that

it further comprises a counter flow meter (21) associated with the metering device (30) for determining volumes of metered-out fuel, wherein the flow meter (21) transmits acquired data to the metering device (20) for adjusting the set value of the n-number.

4. A setting tool according to one of claims 1 to 3,

characterized in that

the metering device (30) comprises at least one metering chamber (31, 31') having inlet (32) and outlet (33), and closing means 34, 35, 36, 37) for reversibly closing medium-tight the inlet (32) and the outlet (33), and wherein during one working cycle, the inlet (32) and the outlet (33) are alternatively and periodically opened and closed n-times.

5. A setting tool according to one of claims 1 to 4,

characterized in that

the metering device (3) has plurality of metering chambers (31') arranged annularly about a central axis (40) and having axes (38) thereof extending parallel to each other, wherein the metering chambers (31') are open at opposite ends thereof and are closed by disc-shaped closing means (34, 35) having passages (39) and rotatable relative to the metering chamber (31'), wherein the opposite open ends are alternately and reversibly closed by respective disc-shaped plates.

6. A setting tool according to one of claims 1 to 3,

characterized in that

each metering chamber (31) is associated with a displaceable body (50, 50', 50'') which changes an inner volume of the metering chamber (31).

7. A setting tool according to claim 3,

characterized in that

the counter (21) is formed as an integrated flow meter.

8. A setting tool according to claim 3, wherein the counter (21) is formed as a step counter.

9. A setting tool according to one of claims 1 to 3,

characterized in that

the sensor means comprises sensors (22) for determining air pressure, temperature, and air humidity of surrounding air.

10. A setting tool according to one of claims 1 to 9,

characterized in that

the metering device (30) is actuated by a solenoid, wherein the solenoid optionally acts on the displaceable body.

11. A setting device according to one of claims 1 to 9,

characterized in that

the motorized drive (52) operates the metering device (30).

12. A setting device according to one of claims 1 to 10,

characterized in that

the motorized drive (52) acts on the displaceable body (50, 50', 50").

13. A setting tool according to one of claims 1 to 10,

characterized in that

a motorized drive acts on the disc-shaped closing means (34, 35).

14. A setting tool according to claim 1,

characterized in that

wherein the control device (20) includes a data processing unit for evaluating and processing the acquired parameters.

15. A setting tool according to claim 14,

characterized in that

the data processing unit includes a microprocessor.